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Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *Ex Parte* Notice: *Promoting Investment in the 3550-3700 MHz Band* – GN
Docket No. 17-258

Dear Ms. Dortch:

On January 22, 2018, Michael Fitzpatrick, Head of Regulatory Advocacy at the General Electric Company (“GE”), John Spirtos, Senior Managing Director, New Business Creations, Growth Equity at GE Ventures, Ken Stewart, Entrepreneur in Residence at GE Ventures, Vijay Venkateswaran, Entrepreneur in Residence at GE Ventures, Regina Keeney of Lawler, Metzger, Keeney & Logan, LLC, and I met with Chairman Ajit Pai and Rachael Bender, Wireless and International Advisor to Chairman Pai, regarding the Commission’s pending Notice of Proposed Rulemaking in the above-captioned proceeding.¹ On the same day, we also met with Erin McGrath, Legal Advisor to Commissioner Michael O’Rielly, to discuss this proceeding.

At these meetings, GE’s representatives urged the Commission to preserve its innovative census-tract licensing framework for the Citizens Broadband Radio Service in the 3.5 GHz band. With census-tract licensing for Priority Access Licenses (“PALs”), a broad range of parties will gain access to licensed spectrum and develop dynamic, diverse uses of the 3.5 GHz band. The Commission’s “Innovation Band” at 3.5 GHz is a dramatic success so far, generating a wave of investment and commercial activity, digital infrastructure development, and collaboration between stakeholders.

We explained at these meetings that census-tract licensing is critically important to GE and its industrial and critical-infrastructure customers, since the CBRS band is an ideal spectrum platform for the “Industrial Internet of Things” (“IIoT”) and can serve as a unique catalyst for accelerated growth throughout the U.S. industrial and manufacturing sector. Robust IIoT applications require significant spectrum, secure localized networks, and specialized technology, and today industrial and critical-infrastructure entities are typically unable to obtain the

¹ See *Promoting Investment in the 3550-3700 MHz Band*, Notice of Proposed Rulemaking and Order Terminating Petitions, 32 FCC Rcd 8071 (2017) (“*NPRM*”).

necessary wireless functionality from commercial mobile operators on a cost-effective basis. The existing CBRS licensing framework will for the first time enable these entities to control their own secure, private LTE networks (upgradeable to 5G) and gain meaningful access to licensed, interference-protected spectrum by actively participating in 3.5 GHz PAL auctions. As long as the Commission retains census-tract licensing across all areas (urban, suburban, rural), IIoT operations at 3.5 GHz should provide secure, reliable, and cost-effective connectivity, functionality, and bandwidth on a localized basis.

In contrast, licensing CBRS on a Partial Economic Area (“PEA”) basis would exponentially raise the cost of PALs and convert licensed CBRS spectrum into a commercial mobile band like most others, controlled by the major carriers. GE’s industrial and critical-infrastructure customers would be highly unlikely to win PEA licenses at auction, even in key, targeted geographic areas. It would not be economically rational for these entities to outbid established wireless carriers for PEA licenses covering territory extending far beyond their geographically focused deployments, whether in urban, suburban, or rural areas. At our meetings, we provided Chairman Pai and Commission staff with maps comparing the geographically limited signal coverage at potential IIoT private network deployment sites (a hospital, an airport, and a utility facility) to the surrounding census tracts and PEAs. (Copies of these maps are attached to this *ex parte* notice.) Under a PEA-based licensing scheme, industrial and critical-infrastructure entities would either have to bid irrationally in an effort to obtain PALs or not participate at all in CBRS PAL auctions.

We also explained that the Commission’s secondary market mechanisms would not alleviate the harms associated with PEA-based licensing at 3.5 GHz. There are numerous factors that would deter large carriers from making sufficient CBRS spectrum available to non-traditional spectrum users, and even where available there would be high transaction costs associated with leasing or partitioning PAL spectrum.

GE and its industrial and critical-infrastructure customers are eager to utilize the 3.5 GHz CBRS band to bring the full benefits of the IIoT revolution to the American public and the U.S. industrial and manufacturing sectors. The Commission should maintain census-tract licensing at 3.5 GHz and take full advantage of this historic opportunity to spur innovation and enormous economic and public safety benefits through widespread scaling of the IIoT.

Pursuant to section 1.1206(b)(2) of the Commission’s rules, 47 C.F.R. § 1.1206(b)(2), this *ex parte* notification and attached maps are being filed electronically for inclusion in the public record of the above-referenced proceeding.

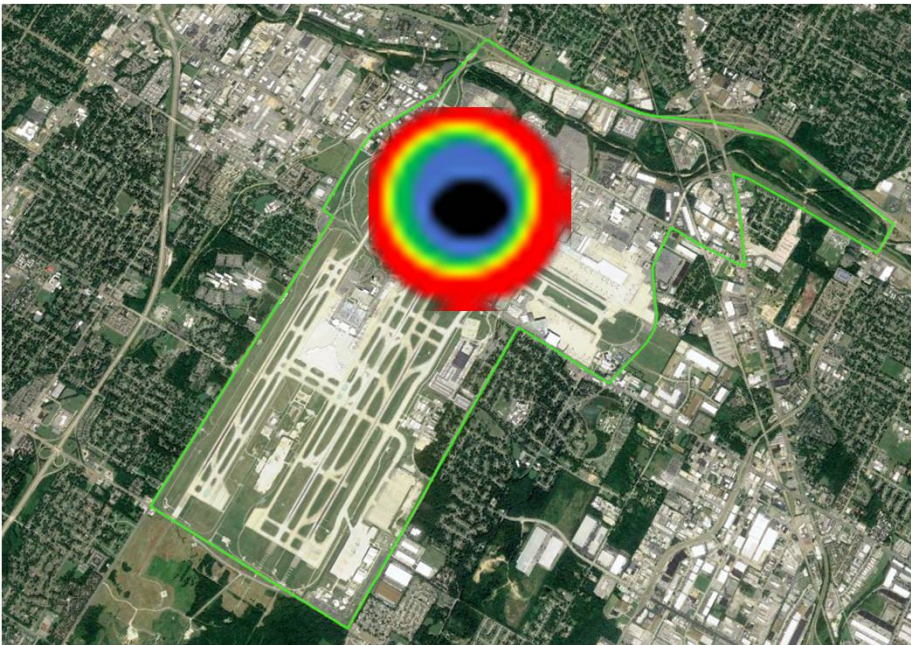
Respectfully submitted,

/s/ Stephen J. Berman
Stephen J. Berman

cc: Chairman Ajit Pai
Rachael Bender
Erin McGrath

Private LTE Network Aircraft Operations and Maintenance

Defined coverage of an outdoor Category B CBSD private LTE network deployment for aircraft operations and maintenance services and support at an airport compared to the census tract containing the network (Green). The deployment site is approximately 2.4 km across.

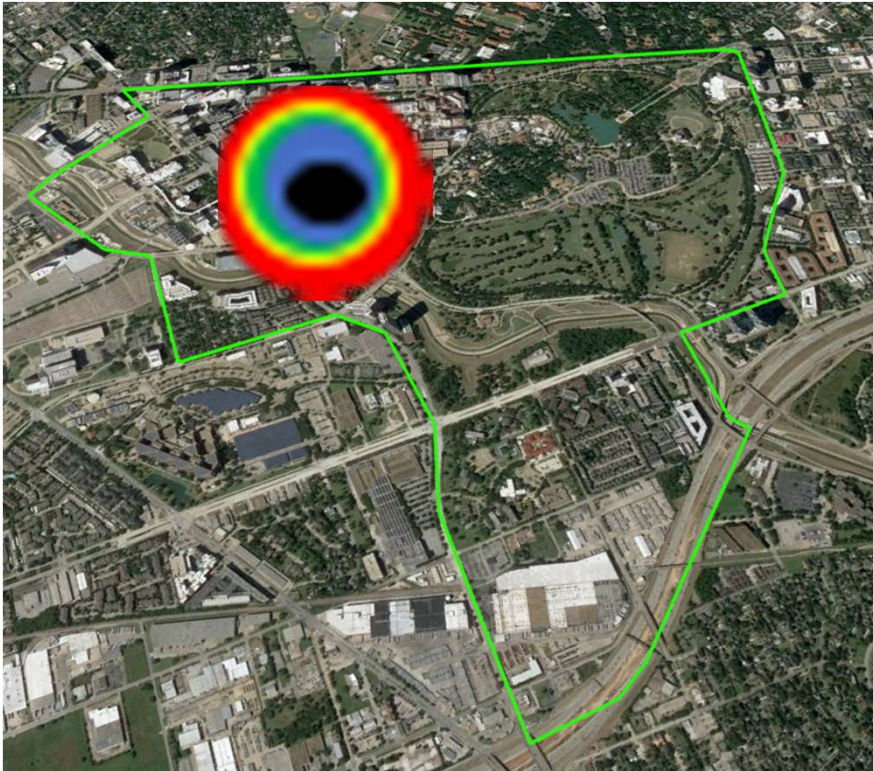


Comparison of the census tract containing the private LTE network at the airport (Green) to PEA (Red), which includes the entire city and the surrounding area



Private LTE Network Hospital

Defined coverage of an indoor Category A CBSD private LTE network deployment at a hospital compared to the census tract containing the network (Green). The deployment site is approximately 1 km across.

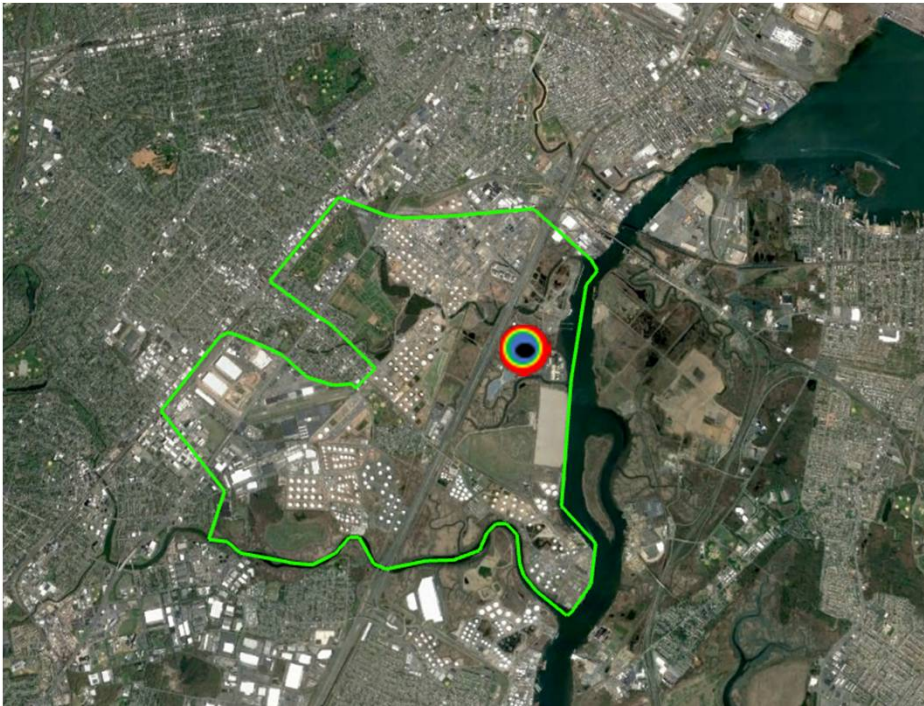


Comparison of the census tract containing the hospital private LTE network (Green) to PEA (Red), which includes the entire city and the surrounding area.



Private LTE Network Power Utility

Defined coverage of an outdoor Category B CBSD private LTE network deployment at a utility service provider compared to the census tract containing the network (Green). The deployment site is about 1 km across.



Comparison of the census tract containing the private LTE network for the utility service provider (Green) to PEA (Red), which includes the entire city and the surrounding areas.

